



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,329	08/21/2001	Frank Olschewski	21295-39	6790

29127 7590 06/14/2005

HOUSTON ELISEEVA  
4 MILITIA DRIVE, SUITE 4  
LEXINGTON, MA 02421

EXAMINER

DO, ANH HONG

ART UNIT	PAPER NUMBER
----------	--------------

2624

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/682,329

Applicant(s)

OLSCHEWSKI, FRANK

Examiner

ANH H. DO

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/2/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jansson et al. (U.S. Patent No. 4,672,559) in view of Katz et al. (U.S. Patent No. 6,172,349).

Regarding claim 1, Jansson discloses:

- depicting a data set in graphical form on a display associated with the microscope (Fig. 1 shows 3-D graphic processor for depicting a 2-D data set in a 3-D graphical form on display monitors 24 and 26 associated with microscope 10);
- selecting at least one position in the graphical form of the data set that depicts an image of the specimen (col. 6, lines 53-56, teaches generating a mark (corresponding to the claimed position) in the graphical form on the mapping display of the data set that depicts the image of the specimen);

Art Unit: 2624

- identifying automatically a region from the data set and the selected position (col. 6, lines 15-18, teaches identifying the region by updating the marker position on the display to indicate the current location of the field of view in the context of the entire specimen);

- performing adjustment operation (Fig. 3A, steps 102-106, teaches adjustment operation on image centering, noise minimizing, optimizing image contrast and brightness, and sensing parameter setting).

Jansson does not disclose expressly focusing automatically of a structure of interest within the identified image of the specimen.

Katz discloses microscope system 103 having an autofocusing feature to focus automatically of the structure of interest within the identified image of the specimen 100 (see Fig. 1 and col. 2, lines 49-67, teaching automatically focusing on the field of view of the specimen image).

Jansson & Katz are combinable because they are from a microscope system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ the automatic focus feature of the microscope system taught by Katz in Jansson.

The suggestion/motivation for doing so would have been to rapidly map in a region of the specimen that extends over many microscopical fields of view without discontinuities and inaccuracies associated with the requirement of moving the stage (Jansson, col. 3, lines 22- 28).

Art Unit: 2624

Therefore, it would have been obvious to combine Jansson with Katz to obtain the invention as specified in claim 1.

Regarding claim 13, Jansson discloses a microprocessor having a software program to perform the steps recited in claim 1 (col. 4, lines 40-42).

Regarding claim 7, Jansson discloses:

- multiple detectors for converting optical signals into electrical signals (Fig. 1: cameras 14 and 16 for converting optical signals into electrical signals);
- an electronic acquisition system, which converts the electrical signals coming from the detectors into digital signals and preprocesses them, is provided (Fig. 1: processor 18 having an A/D converter for converting converts the electrical signals coming from the cameras 14 and 16 into digital signals and preprocesses them);
- a PC, which receives the digital signals from the electronic acquisition system and identifies from the digital signals a graphical depiction which corresponds to an image of the specimen (Fig. 1: 3-D graphic processor 48 receiving digital signals from the electronic acquisition system 18 and identifying from the digital signals a graphical depiction (i.e., a 3-D graphical form) which corresponds to an image of the specimen);
- a display, which reproduces the graphical depiction and moreover offers selectable adjustment functions to the user, is connected to the PC (Fig. 1: monitors 24 and 26 are connected to processor 48 via processor 18 and bus 20 for reproducing the graphical depiction; and Fig. 3A shows steps 102-106 for

Art Unit: 2624

performing adjustment operation on image centering, noise minimizing, optimizing image contrast and brightness, and sensing parameter setting).

Jansson does not disclose expressly focusing automatically of a structure of interest within the identified image of the specimen.

Katz discloses microscope system 103 having an autofocus feature to focus automatically of the structure of interest within the identified image of the specimen 100 (see Fig. 1 and col. 2, lines 49-67, teaching automatically focusing on the field of view of the specimen image).

Jansson & Katz are combinable because they are from a microscope system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ the automatic focus feature of the microscope system taught by Katz in Jansson.

The suggestion/motivation for doing so would have been to rapidly map in a region of the specimen that extends over many microscopical fields of view without discontinuities and inaccuracies associated with the requirement of moving the stage (Jansson, col. 3, lines 22- 28).

Therefore, it would have been obvious to combine Jansson with Katz to obtain the invention as specified in claim 7.

Regarding claims 2 and 14, Jansson teaches analytical operation is based on the data set of a structure of interest (col. 7, lines 31-52, teaches the operation of centering, minimizing, optimizing and setting in steps 102-106 of Fig.

Art Unit: 2624

3A is based on the image data covering a substantial portion of the specimen (corresponding to the claimed data set of a structure of interest)).

Regarding claims 3 and 15, Jansson teaches selecting an adjustment function for execution of an adjustment operation (col. 6, lines 53-67, teaches selecting a mapping mark function as an adjustment function for execution of the adjustment operation).

Regarding claims 4 and 16, Jansson teaches adjustment operation modifies at least one sensing parameter (col. 7, lines 35-51, teaches modifying sensing parameters such as image centering, noise minimizing, image contrast and brightness optimizing, default system parameter setting).

Regarding claims 5 and 17, Jansson teaches the image sensing parameters consisting of zoom, rotation (col. 5, lines 34-37), image centering, illumination (col. 7, lines 35-46).

Regarding claims 6 and 18, Katz teaches:

- discloses microscope system 103 having an autofocusing feature to focus automatically of the a structure of interest within the identified image of the specimen 100 (see Fig. 1 and col. 2, lines 49-67, teaching automatically focusing on the field of view of the specimen image).

And Jansson teaches:

- centering of the structure of interest within the image of the specimen (col. 7, lines 35-41).

The motivation is set forth in the discussion of claim 1 and 13.

Regarding claim 8, Jansson teaches a memory that serves for temporary

Art Unit: 2624

storage of the at least one structure of interest and is connected via a line to a routing unit (Fig. 1: memory 50 and the routing unit 20); and a pixel clock is in communication both with the memory and the routing unit (col. 4, lines 49-53).

Regarding claim 9, Jansson teaches the routing unit having multiple outputs by way of which the microscope is controllable (Fig. 1: bus 20).

Regarding claim 10, Jansson teaches A/D converter (Fig. 1: image processor 18 including D/A).

Regarding claim 11, Jansson teaches computer system inherently including an FPGA (Fig. 1: computer system 40).

Regarding claim 12, Jansson teaches the adjustment functions are arranged on the display in a panel box in the form of multiple click buttons (Fig. 1: monitors 24 and 26).

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K. MOORE can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 13, 2005.



**ANH HONG DO**  
**PRIMARY EXAMINER**